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## ARE INSTINCTS DATA OR HYPOTHESES?

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### ABSTRACT

*Lack of agreement concerning instincts.*—William James made current the doctrine that man has more instincts than the animals. Later discussion has revealed much disagreement concerning the definition of instincts and even more uncertainty concerning their number. Lists range from forty, thirty, twenty-six, twenty, fifteen, to four, two, and one. The confusion is probably due to the hypothetical nature of instincts. *The genetic explanation of instincts.*—The genetic explanation is a sort of mythological effort and has resulted in rather ludicrous stories which pass as explanations. The corrective lies in the study of ethnology by which a comparison of different human customs will reveal the fact that much which seemed at first to be native is really the result of social customs. *Instincts are hypotheses: social attitudes are data.*—Instincts emphasize similarities which often have no existence. Sociology has at hand empirical data in the form of attitudes, desires, and wishes, whose classification and explanation should be one of its chief concerns. *Temperament.*—The study of temperamental attitudes is far more profitable for social psychology, for, while temperament is also a hypothesis, it is a necessary one and it concerns individual differences which are of most importance in dealing with problems of personality.

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The doctrine of human instincts is, in this country, hardly more than a generation old. It is only thirty-one years since James wrote: "Nothing is commoner than the remark that man differs from the lower creatures by the almost total lack of instincts and the assumption of their work by reason." So well did he argue for the existence of instincts in man that we may now say: Nothing is commoner than the belief that we are endowed with instincts inherited from the lower creatures. Whole systems of psychology have been founded on this assumption. And yet the agreement among psychologists has very definite limits. As each came to define and list the instincts, it became increasingly apparent that the subject was very difficult, there being little agreement either as to the nature of the instincts or their number. At the present time there is the widest diversity of opinion as to what an instinct is; there is the utmost confusion as to how many there are. What are the implications of this diversity and this confusion? Perhaps the explanation is that human instincts are explanatory

assumptions and not observable phenomena. Let us examine how they are defined and listed.

# I

The definitions vary widely. Says James: "An instinct is the faculty of acting in such a way as to produce certain ends without foresight of the ends and without previous education in their performance."<sup>1</sup> This definition is criticized by several of his successors, including Thorndike.<sup>2</sup> The succeeding attempts agree, for the most part, in being different from that of James, but their similarity goes little farther. Hunter expresses his view in five words, calling an instinct "an inherited coordination of reflexes," adding that "it refers not to a state of consciousness but to a mode of behavior,"<sup>3</sup> against which notion McDougall asserts that "instincts are an outcome of a distinctly mental process as well as an innate tendency."<sup>4</sup> McDougall represents a tendency which culminates in this curious formulation from Drever:

Now we are proposing to call the conscious impulse instinct, when and in so far as it is not itself determined by previous experience, but only determined in experience, while itself determining experience in conjunction with the natural objects or situations determining experience as sensation.<sup>5</sup>

One is tempted to discuss this gem of verbosity, but I pass to the statement of Münsterberg that the term instinct is not a psychological category at all, but is strictly biological, "the instincts do not introduce any new type of psychological experience,"<sup>6</sup> which opinion can be set over against the contradictory assertion of Wundt: "The assumption that instincts belong only to the animal and not to human consciousness is of course entirely unpsychological and contrary to experience."<sup>7</sup> Watson calls it a chain of reflexes, while Pillsbury<sup>8</sup> relates it to openness of synaptic connection. It is perhaps unnecessary to cite further instances, for every student of the literature is aware of the wide variations in

<sup>1</sup> *Principles of Psychology*, II, 383.

<sup>5</sup> *Instinct in Man*, p. 88.

<sup>2</sup> *Educational Psychology*, I, 22.

<sup>6</sup> *Psychology, General and Applied*, p. 186.

<sup>3</sup> *General Psychology*, p. 163.

<sup>7</sup> *Outlines of Psychology*, p. 317.

<sup>4</sup> *Social Psychology*, p. 26.

<sup>8</sup> *Essentials of Psychology*, p. 240.

the formulations of the definitions—not merely verbal differences, for these would not be important, but fundamental differences in conception. But why do they differ so widely? May it not be due to the very nature of the problem itself?

Certain of the psychologists have, indeed, written very frankly concerning the difficulties here insisted upon, but the momentum of current opinion, the idols of the theater, have prevented their carrying out the impulse to reject the category as a factual datum. Thus Thorndike admits:

Lack of observations of human behavior and the difficulty in interpreting the facts that have been observed which is the consequence of a civilized environment, the transitoriness of instincts and the early incessant and intimate interaction of nature and nurture, thus baffle the cataloguer of original tendencies.<sup>1</sup>

Unfortunately, the baffled feeling did not endure, for on page 52 of the same volume the very same author thus describes the instinct of hunting—an instinct which Angell declares not to exist.

To a small escaping object, man, especially if hungry, responds, apart from training, by pursuit, being satisfied when he draws nearer to it. When within pouncing distance, he pounces upon it, grasping at it. If it is not seized he is annoyed. If it is seized, he examines, manipulates and dismembers it, unless some contrary tendency is brought into action by its sliminess, sting or the like. To an object of moderate size and not offensive mien moving away from or past him man originally responds much as noted above, save that in seizing the object chased, he is likely to throw himself upon it, bear it to the ground, choke and maul it until it is completely subdued, giving then a cry of triumph.

This description lacks nothing in vividness, but one would hardly have expected such a statement from the scholar who wrote the masterly critique of the doctrine of imitation. The description is hardly convincing—it smacks of the armchair. How many children in the city parks may be observed pouncing on the small animals and dismembering them? The chickens, cats, and small dogs are “of moderate size and not offensive mien” and often may be seen “moving away from or past” the children, but the number of times the children can be observed “choking and mauling them till completely subdued, giving then a cry of triumph” is perhaps

<sup>1</sup> *Educational Psychology*, I, 40.

decidedly limited. Certainly, if the above is the hunting-instinct, then by me the hunting-instinct has never been seen. Perhaps this only happens when the human being is "apart from training," but the trouble is that the hypothetical baby who, on a desert island, had no training at all, died at the tender age of two days and only the writers of the books have ever seen a man "apart from training."

Watson also makes a frank admission.

No fair-minded scientific observer of instincts in man would claim that the *genus homo* possesses anything like the picturesque instinctive repertoire of the animal. Yet even James maintains the contrary. . . . Instinct and the capacity to form habits, while related functions, are present in any animal in inverse ratio. Man excels in his habit-forming capacities.<sup>1</sup>

Yet even Watson gives an extended list of instincts, accompanied, at the same time, with many expressed misgivings.

Cooley may be taken as a representative of those who reject the term instinct as characteristic of human nature, the distinguishing marks of which being the plastic and variable nature of the responses.<sup>2</sup> Münsterberg, already quoted, also rejects instincts.

## II

It is clear, then, that the definition of the term is in doubt. It will be even easier to show that the number and classification of the instincts is in a state of direst confusion. James leads off with some thirty-two (including the instinct of licking sugar!), but Angell<sup>3</sup> is content with half that number, rejecting the alleged instinct of cleanliness (perhaps he had a small boy of his own) and refusing to include hunting and modesty. He did, however, make certain additions not on James's list. Warren<sup>4</sup> has twenty-six, including "clothing," "resenting," and "domineering," while Thorndike in his *Original Nature* enumerates some forty or more besides certain "multiple tendencies" both of thought and action. Nor is this all. Pillsbury, Watson, Hunter, and the rest, among the psychologists, as well as Graham Wallas, Carleton Parker, Ellwood and Hayes, and many others, all follow with their own

<sup>1</sup> *Psychology*, p. 254.

<sup>3</sup> *Psychology*, p. 349.

<sup>2</sup> *Social Process*, p. 199.

<sup>4</sup> *Human Psychology*, p. 106.

lists, no two quite agreeing and each with his own opinion as to what should be included and what rejected. McDougall, in the work already referred to, has proposed a criterion which requires the instinct to be found among the animals, not in all the animals but in some of them, and also to be found in an exaggerated form among abnormal people. This leads him to posit some fifteen or more, the number varying in different editions of his work. The zoölogical garden on the one side and the insane asylum on the other would thus have a veto on the candidates for the list, but the criteria have found favor with but few.

Trotter in a war-time book insists on four instincts and no more; Ames in his *Psychology of Religion* reduces them to two instincts which he finds quite sufficient to explain the complexities of human life, while Freud, Jung, LeBon, and Kropatkin each reduces human nature to one single instinctive principle, though they do not agree on what it is.

How does it happen that gifted men are so unable to agree on what they consider the basic facts of human nature? Some slight differences might be understood, but surely the range is distressingly wide. One, or two, or four, or eleven, or sixteen, or thirty, or forty—this looks suspicious. Facts are the given, accepted, apparent data of a problem. Perhaps instincts are the hypotheses.

There is one distinction that has received increasing emphasis since the time of James, that between reflexes and instincts. This distinction seems too valuable to be surrendered, for there is a class of reflexes like sneezing and coughing that do not vary noticeably, and there is a list of them in constant use for diagnostic purposes. The patellar reflex is a well-known example. But the case of the instincts is very different. No such specificity exists here, no such invariability, no approximation of anything approaching the uniformity with which different authorities set forth the list of reflexes.

The difficulty in formulating a doctrine of instincts is that habit and social interaction enter in so early that it is difficult to disentangle the original from the acquired. For example, Watson investigated the causes of fear in children. A statement by James has been repeated and reaffirmed by many subsequent writers.

Strange animals, either large or small, excite fear, but especially men or animals advancing toward us in a threatening way. This is entirely instinctive and antecedent to experience. Some children will cry with terror at their very first sight of a cat or dog, and it will often be impossible for weeks to make them touch it.

Watson tested this, by introducing into the presence of children who had no previous experience with animals, all sorts of strange stimuli, a pigeon, a rabbit, a white rat, or a dog, but he was unable to find any visual experience that caused fear. He did find, however, that if a sudden noise frightened a child at the same time that a hairy animal or a fur coat was shown him, the presence of the coat or animal alone would subsequently arouse fear.<sup>1</sup> And the moral of that is that the conditioned reflex, or as the older writers called it, simultaneous association, begins to modify inherited reactions from the very first, and continues so to modify them. Instincts are therefore impossible to make out in their purity, for they are constantly being modified by habit and social experience.

### III

The most usual explanation of instinct has relied upon the so-called genetic method and assumes that these social customs, which are observed among civilized people, are the result of the stamping in, through age-long experience, of some reaction which is inherited by each succeeding generation. Thus Patrick derives the love of baseball from the activities of prehistoric savages: "Man in the primitive world had to run, throw, and strike." And baseball actually reproduces the very attitude of the cave man with his club. The question arises, however, as to why Russian boys or the French or Chinese do not play baseball. It is to be presumed that American boys are not alone in having descended from primitive man.

The ridiculous length to which this author carries the "genetic" method is illustrated by his statement that "the former dependence of man upon the horse is shown in the instinct of the child of today to play horse, to ride a rocking-horse, or a stick, or anything."<sup>2</sup>

<sup>1</sup> *Op. cit.*, chap. 6.

<sup>2</sup> *Psychology of Relaxation*, p. 56.

The corrective of this type of error lies in a wider knowledge of ethnology. Consider, for example, the enormous variation in food preferences. The Eskimo eats only meat, often raw. The Hindu eats only vegetables and is unwilling to kill even an insect. Most of us eat both animals and vegetables. Millions of people still occasionally eat human flesh. Whole nations have fish as a prominent part of their diet, but the Plains Indians never eat fish, regarding it as poison. A colleague of mine objects to negroes living next door to him and defends it as an inherited instinct, while Texans on the Rio Grande speak of a "native instinct" of hostility to the Mexicans, not to speak of the feeling of Californians toward the Japanese. None of these feelings are instinctive.

The power of a social custom to modify original nature may be well illustrated by comparing the attitudes of two African tribes concerning twins. The women of the Ibibio tribe in Nigeria live in constant dread of the misfortune of bearing twins. They never eat of a double yam or a double plantain lest its magic power cause the birth of twin children, one of whom at least is no merely mortal offspring but the child of some wandering demon. When twins are born, they are flung into the bush for the leopards to eat, while the mother goes apart for twelve months, purifying herself in strict seclusion, food being taken to her once a week. Even this is a mitigation, due to the humanizing effect of an approaching civilization, for formerly both mother and children were inevitably killed.

In the Congo Valley live the Bankundo people, less than a thousand miles from those in Nigeria, among whom the mother of twins is the object of honor and veneration throughout her life. She is entitled to wear a special badge around her neck, and her name is changed to "Mother-of-Twins," a title which is quite permanent, like the title "Judge" among us, or "Colonel" in Kentucky. She is always saluted in a special manner, being given a double greeting, one for each twin.

The natives of the Ibibio tribe are thus afraid of twins and always kill them. The Bankundo fondly love twins and highly honor their mother. If either of these customs were alone known, we might easily assume an instinct toward twins. To account for



the former, the law might be formulated: In the parental instinct two affirmatives are equal to a negative, canceling each other. If the latter custom were to be reduced to law, it might read: Parental love varies directly as the square of the number of children born simultaneously. The customs being contradictory, we are compelled to assign the phenomena to nurture and not to nature.

Many discussions of instinct refer to the imagined experiences of our primitive ancestors, experiences which are learned not by a direct observation of facts, but which are described by those who possess a luxuriant imagination. In discussing the instinct of pugnacity, McDougall quotes with approval Lang's account of the origin of prohibition and punishment. It is too delicious to omit.

The primitive society was a polygamous family, consisting of a patriarch, his wives and children. The young males, as they became full-grown, were driven out of the community by the patriarch, who was jealous of all possible rivals to his marital privileges. They formed semi-independent bands hanging, perhaps, on the skirts of the family circle, from which they were jealously excluded. From time to time the young males would be brought by their sex impulse into deadly strife with the patriarch, and, when one of them succeeded in overcoming him, this one would take his place and rule in his stead.<sup>1</sup>

Since there are absolutely no data on the foregoing question, as no one ever observed such a society, the luxuriance of imagery is remarkable. But the scientific(?) process involved is identical in every way with primitive myth-making and differs in no respect from the explanation which Eskimos give in Greenland to account for the existence of white men, who are said to be the children of an Eskimo girl who got lost and married a dog.

Stimulated by these illustrious examples, I have been emboldened to explain an interesting "instinct" which, though widely known, seems to have escaped the attention of our professional mythologists. In observing my six-months-old infant, his tendency to put his toes into his mouth is the occasion of much interest on the part of the family. Now this "instinct" is quite common among human infants, and is not due to imitation, for, alas, my joints are so stiff that he did not learn it from me. It is a native, inherited propensity. As a "genetic" psychologist I might explain

<sup>1</sup> W. McDougall, *Introduction to Social Psychology*, p. 282.

it as inherited from cave-dwelling ancestors who, shut up all winter in their caves, would necessarily let fall much food upon the floor of the cave, some of which would inevitably be collected in considerable masses on the bottoms of the feet and between the toes of the inhabitants of the cave. In times of famine, those who could eat the accumulated food from their feet and toes would be enabled to survive, and thus the tendency, now no longer useful, would be inherited by their descendants.

Still retorting in kind, I would insist that by the criteria of McDougall it would be entirely possible to make an irrefragable argument for the existence of infanticide as a human instinct. It complies with all the requirements; it is specific, it occurs frequently among the lower animals, and it exists among abnormal people as a pathological disturbance. While infanticide is not universal, yet no instinct is without exception, and the "instinct" of infanticide may be thought of as moderated by the "parental instinct," just as shyness and sociability modify each other or as curiosity and secretiveness are held to alternate in their activity. The instinct is confined to girl babies among some tribes, and was widely practiced in some form among the Greeks and Romans. It is undoubtedly very widespread among civilized people, but is now usually concealed. It could also be argued that infanticide had, originally, a survival value. It not only has eugenic possibilities, as when called out by the perception of weak or sickly or deformed children, but in times of famine it would reduce the number of mouths to be fed. Moreover, the children themselves could be cooked and eaten. Readers of the Bible will recall the passage in Deuteronomy, chapter 28, where the eating of children by parents is specifically referred to. Surely, the *reductio ad absurdum* is justified.

#### IV

One who goes over the literature carefully is impressed by the fact that whenever it is proposed to discuss a human instinct there is a tendency to give examples of the behavior of the lower animals. Drever has written a book on *Instinct in Man*, for the most part a discussion of the opinions of philosophers. There is very little citation of facts, and when one comes, finally, to a

chapter on specific instinct tendencies and proposes to read about gregariousness, he is presented with an account of the behavior of the wild ox of Damaraland. Descriptions of human behavior usually concern observations of children, and if these are infants, no instincts occur, only reflexes. The explanation of adult behavior usually goes back to the adaptive behavior of primitive man who never acquired any bad habits because he lived in the golden age when nature was right.

It is perfectly clear that such naïve inventions based on a theory of evolution form no part of a valid scientific method and only obscure the whole issue. This much at least is plain: An instinct in developed human beings can never be the result of direct observation. At best, it can be a hypothetical inference, an assumed elementary component, in a complex human situation. It was formerly assumed that human mothers were in possession of a maternal instinct which enabled them to perform their duties adequately. But if untaught human mothers be carefully observed, very little evidence appears in support of this notion. One of the most awkward sights to be seen, says Watson, is an uninstructed young mother trying to bathe her baby. It is safe to say that the doctrine of a maternal instinct so eloquently preached by psychologists is not only untrue, but has been the occasion of much suffering and even of the death of many children. A mother robin knows without teaching how to prepare a place for her young, what sort of food they need, and where to find it. There is much evidence that human mothers are far less competent in this respect. The common opinion is that uncivilized people are more fortunate, and that our maladjustments are due not to our human nature, but to the artificialities of civilization. But the more primitive people are understood, the less support appears for this view. Present-day uncivilized people have an enormous death-rate, endure much pain and suffering, and, moreover, have their lives hedged about at every turn with artificial convention, rigid and harmful taboos, social prohibitions, and threatening fears.

There is probably sufficient warrant for assuming instincts among the lower animals, and there is certainly no justification for going back to the older view that man has reason which marks

him off as acting from considered motives; but it is a question whether the human animal does inherit specific instinctive patterns. There seems to be a fundamental difference between man and the lower creatures.

What I am insisting on is that the human instincts, except in the case of very young children performing various simple acts, are never the result of direct observation. These infantile acts are moreover of the reflex type. If human instincts were assumed as hypothetical concepts to be arrived at at the end of the discussion, the psychologist would not commit the sin against the Holy Ghost. What this type of "genetic" psychologist does is to make his hypotheses into a fact and put it at the first of his discussion; but to make into fact that which is not fact is to deserve censure. If we are ever to get ahead, we must know a fact when we see it.

## V

The social psychologist should fasten his attention on the facts of human nature which lie all around us in the form of attitudes, desires, and wishes, which can be recorded, studied, collected, classified, and explained, and which are open to no such objection as the instincts, which in the nature of the case are always hypothetical components of a complex form of behavior.

Genetic psychology would not only be defensible, but would be in the highest degree valuable if it abandoned its attempt to explain human nature as a whole and confined itself to the study of particular groups. It is very profitable to try to understand the different stages through which an American boy will probably pass on the way from childhood to maturity. It is also a reasonable possibility that such a statement can be made. But no statement can be true of all men everywhere, so long as cultural inheritances differ so profoundly. The American boy during adolescence often passes through a period of individualism and rebellion. So also perhaps do boys of other groups, but certainly it is not true that the boys in isolated primitive groups have just this tendency. Girls play with dolls and boys with marbles, but this is not original nature nor instinctive nor to be explained by racial history. I have often seen in equatorial Africa a naked child of five drawing

along the path a realistic model of a five-hundred-ton steamer with a stern wheel that turned. The toys of children always point forward, never backward. The explanation is to be found in social recognition and not in prehistoric activities.

*The Polish Peasant*, by Thomas and Znaniecki, is a model of the type of investigation referred to. For a Polish peasant is not like a Russian peasant, and is very different from a Chinese coolie. And the difference is to be accounted for, to an extent as yet undetermined, in terms of social interaction. Nothing but confusion and disappointment will result from regarding instincts as factual data which can be observed, classified, and explained. Students of social psychology should study social values, social attitudes, desires, wishes, and organization. We should build on a foundation of facts. We need to elaborate better ways to get at the facts. The emphasis should be placed on methods of investigation. We should leave to others their mythological constructions and build our science on surer foundations.

## VI

But if it be contended that conscious desires and wishes are too varied and complex to be adequately dealt with and that the assumption of instincts is a necessary simplification of the multi-form material, the answer is that the simplification is unreal and the satisfactions illusory. The schoolrooms of the land too often present the spectacle of straight rows of identical desks at which sit children of the same age, supposedly endowed with the same instincts and therefore to be treated all alike. And when the method fails, democracy is blamed instead of the mistaken science. In his last book McDougall has actually formulated separate degrees of instincts for separate races, and we of the Nordic race are asserted to be deficient in the "gregarious instinct," being a race in love with our separate homes from which we emerge only at the call of duty, or war, or ambition. And he has seen New York!

There is, however, a concept of a hypothetical character which is a necessary assumption, the study of which is most important and which has been strangely neglected—I refer to temperament. Had the energy that has been devoted to describing and listing

hypothetical instincts been devoted to an attempt to analyze and isolate the temperamental factor in the complex social attitudes, we should be much farther ahead. Instinct tends to describe us *en masse*; temperament emphasizes the differences. And in the solution of the problems of personality that confront the social psychologist, the differences are the more significant.

The analysis and isolation of temperamental attitudes is a very difficult task, for temperament, too, is a hypothesis. For more than two thousand years the term has been used and the results are still very meager. But with the impetus given the subject by the interesting work of Downey<sup>1</sup> and with current interest in the study of human wishes, there is ground for hoping that patience and hard thinking may yet be rewarded. If temperaments could be adequately classified and a method of determining them could be devised, there would be made available an invaluable supplement to the intelligence tests. Indeed, until something of this nature is discovered, the intelligence tests cannot only not come into their full usefulness, but they will continue to be used to buttress fallacious arguments. There will be the initial advantage in this new attack on temperament that the same mistake need not be made that was made in studying instincts, namely, the mistake of thinking that hypotheses are data.

<sup>1</sup> "Some Volitional Patterns Revealed by the Will-Profile," *Journal of Exper. Psychol.*, III, 281.